Women and Infant Health Overview

Women and Infant Health

Optimal women's and infant health, including reproductive health, is a critical foundation for long-term health. Pregnancy and childbirth have a huge impact on the physical, mental, emotional and socioeconomic health of women and their families. Pregnancy-related health outcomes are influenced by a woman's health, behaviors and other factors, such as race/ethnicity, age and income. In addition, the environment and conditions in which an infant is raised will greatly influence his or her health in early childhood and well into adulthood. There is also a growing awareness that chronic disease prevention and wellness promotion throughout the primary reproductive years can ensure better birth outcomes as well as better health for women as they grow older. The assurance of positive health outcomes for all women may address issues such as chronic disease and injury, healthy lifestyles, and health disparities.

There are close to 250,000 women of reproductive age (defined as 15-44 years old) and about 19,000 births every year in the State of Hawaii. This group represents about 20% of the entire state population. To illustrate the health of this population, the report relies on data from Vital Statistics, the Pregnancy Risk Assessment and Monitoring System (PRAMS), the Behavioral Risk Factor Surveillance System (BRFSS) and individual program data. All these data systems have inherent limitations, so the collection of additional information is often needed to effectively address the complex health problems facing women and infants to make inroads toward optimizing their health. Working at multiple levels — including the state, community and clinical levels — will be necessary to have a positive impact on women and infant health indicators.

Intended Pregnancy

Goal: To Increase the Proportion of Intended Pregnancies

Issue:

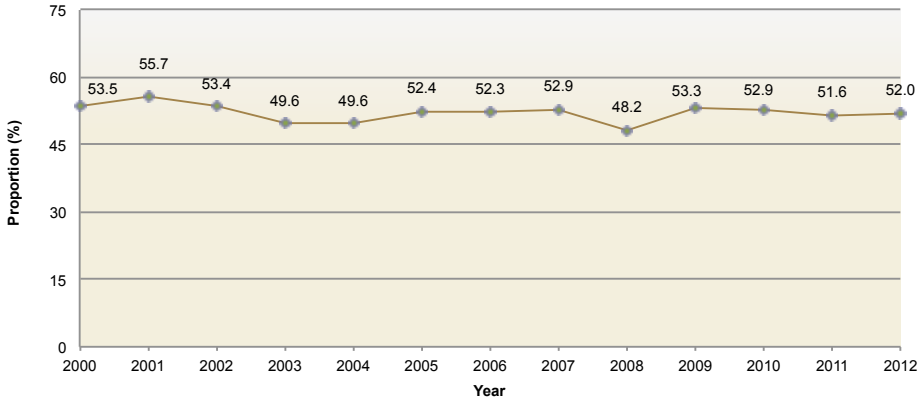
Unintended pregnancy is associated with late or inadequate prenatal care, low birth weight, neonatal death, domestic violence, child abuse, and exposure of the fetus to harmful substances such as tobacco, alcohol and other drugs.[7] It is also associated with economic hardship, marital dissolution and unmet educational goals.

Healthy People 2020 Objective:

Increase the proportion of pregnancies that are intended to 56% (or decrease unintended pregnancies to 44%).

Population-Based Data:

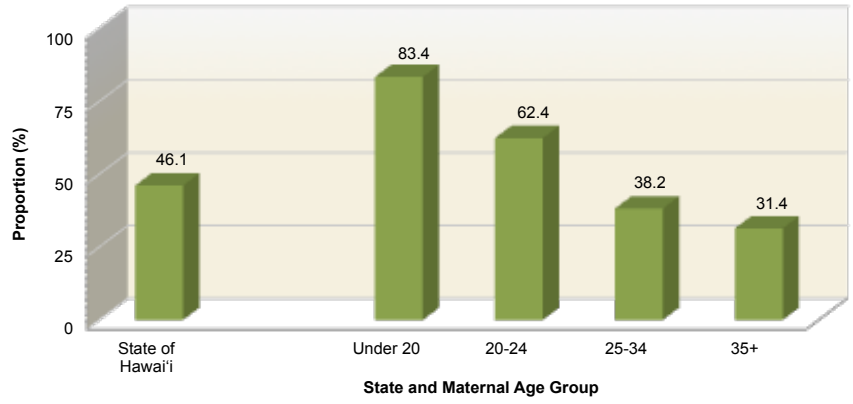
Figure 3.1 State of Hawaii, Unintended Pregnancy: 2000-2012



In the U.S. in 2006, an estimated 49% of all pregnancies were unintended.[12] There has been little change in the unintended pregnancy rate in Hawaii: the rate has shifted from 53.5 percent in 2000 to 52.3 percent in 2006 to 52.0% of all pregnancies in 2012.

Source: Hawaii State Department of Health, Office of Health Status Monitoring. Hawaii State Department of Health, Pregnancy Risk Assessment Monitoring System.(PRAMS) Note: The rate of unintended pregnancy is derived from estimates from the OHSM birth, fetal death, and Induced Termination of Pregnancy (ITOP) files. Data limited to residents. PRAMS estimate from 2011 was carried over to 2012 estimate. ITOP and fetal death files were not available for 2013 at time of publication.

Figure 3.2 State of Hawaii, Unintended Pregnancy Among Live Births by Maternal Age: 2009-2011



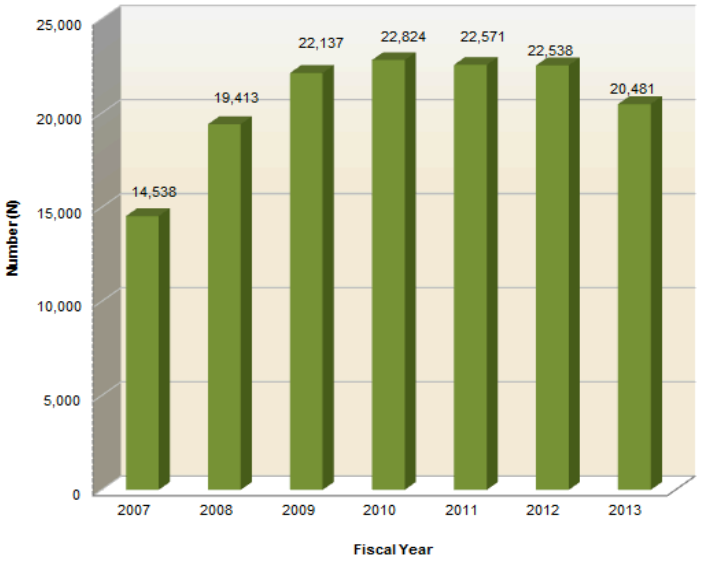
In Hawaii, data aggregated from 2009-2011 shows higher estimates of an unintended pregnancy among live births in women younger than 20 years of age and those 20-24 years of age. However, more than a third of all pregnancies that resulted in a live birth among those 25-34 years old were unintended and almost one third were unintended among women 35 years old and older.

Source: Hawaii State Department of Health, Pregnancy Risk Assessment Monitoring System. Note: PRAMS data is only based on pregnancies that resulted in a live birth and does not include fetal deaths or ITOPs.

Program Highlight:

Figure 3.3 Clients Receiving Family Planning Services in Family Planning Program-Funded Clinics: 2007-2013

The **Family Planning Program** within the Maternal and Child Health Branch assures access to affordable birth control and reproductive health services for all individuals of reproductive age, with a priority on serving low-income and hard-to-reach individuals (uninsured or underinsured persons, immigrants, males, persons with limited English proficiency, homeless persons, substance abusers, persons with disabilities and adolescents). Services are offered free or at low cost and include education, counseling, cervical and breast exams, provision of appropriate contraceptive methods, and testing for pregnancy and sexually transmitted infections. In 2013, the Family Planning Program contracted with 17 providers, offering services in 37 clinics and community sites statewide. In Fiscal Year 2013, the program served approximately 20,481 clients, which is fewer than the number served in the prior four years.



Source: Hawaii State Department of Health, Family Health Services Division, Maternal and Child Health Branch, Family Planning Program. Data reflects Fiscal year (July 1-June 30).

The Family Planning Program also provides other services to address unintended pregnancy, including:

- family planning need assessments in rural and low socioeconomic communities;
- professional training and technical assistance to providers through annual webinars, workshops and conferences that feature updates on research, methods and practices for family planning; and
- family planning community education and outreach services to reach low-income and hard-to-reach residents through a statewide network of health educators who provide health information, including avenues to access family planning services.

In addition to the health benefits associated with reducing unintended pregnancies, research finds that every $1 invested in family planning programs saves about $4 in Medicaid spending.[II]

Other Program Activities:

- The Maternal and Child Health Branch's **Hawaii Home Visiting Network** for at-risk families with children 0-3 years old also promote appropriate interconception care. Data on postpartum examinations for all postpartum women enrolled in home visiting programs are collected within the first three months of enrollment and every six months thereafter. Information on birth spacing is also provided for all enrolled mothers and pregnant women.
- All perinatal program health service contracts, including **Perinatal Support Services, Family Planning Program,** and the **Big Island Perinatal Health Disparity Project (from 1999-2014),** provide services and support for women during the interconception period (between pregnancies), including access to family planning services to increase birth spacing and reduce unintended pregnancy.
- The **Supplemental Nutrition Program for Women, Infants and Children (WIC)** Services Branch, which serves low-income women and their young children, also supports women during the interconception period to promote optimal health outcomes, including the reduction of future unintended pregnancies. WIC clients are provided information on recommended birth spacing and encouraged to maintain routine health care visits and have medical and dental homes.

Prenatal Care

Goal: To Ensure Early Entrance into Prenatal Care

Issue:

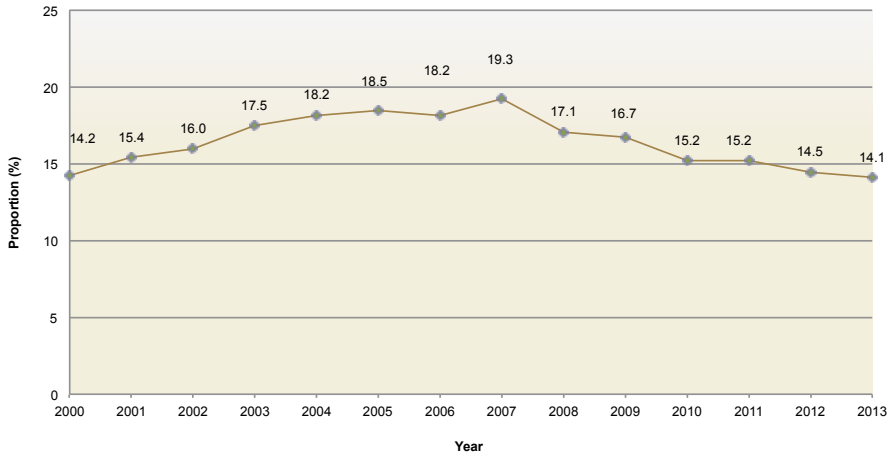
Early identification of maternal disease and risks related to complications of pregnancy or birth are the primary reasons for first trimester entry into prenatal care. This can help ensure that women with complex problems and women with chronic illness or other risk factors are seen by specialists if needed. Early high-quality prenatal care is critical to improving pregnancy outcomes.[7]

Healthy People 2020 Objective:

Increase the proportion of pregnant women who receive prenatal care in the first trimester of pregnancy to 77.9% (or decrease to 22.1% the proportion without prenatal care in the first trimester).

Population-Based Data:

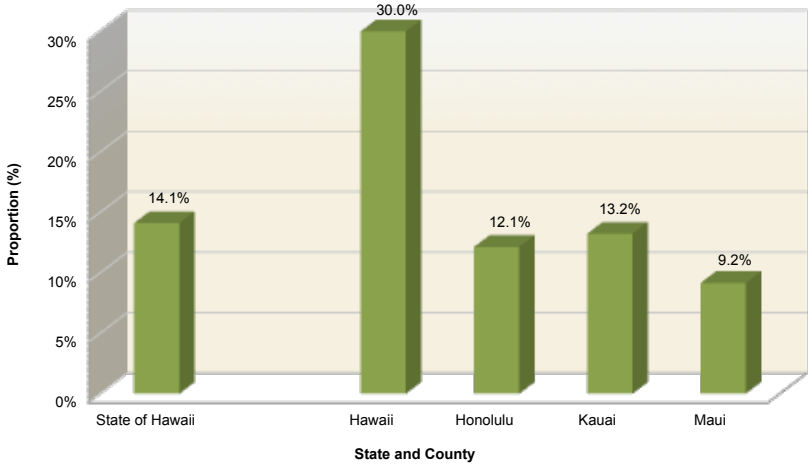
Figure 3.4 State of Hawaii, Mothers Without First Trimester Prenatal Care: 2000-2013



In Hawaii, the proportion of mothers without first trimester prenatal care steadily increased from 2000 to 2007 when an estimated 19.3% reported no first trimester prenatal care. There appears to be improvement during the past five years, with 14.1% reporting no first trimester prenatal care in 2013. There is no recent corresponding national data for comparison due to the version of the birth certificate used in Hawaii.[13]

Source: Hawaii State Department of Health, Office of Health Status Monitoring.
Note: Hawaii uses 1989 revision of birth certificate so estimates are not directly comparable for prenatal care to the national estimate from CDC, which only reports estimates based on the 2003 birth certificate revision. Limited to Resident Population and 2013 data is provisional.

Figure 3.5 State of Hawaii, Mothers Without First Trimester Prenatal Care by County: 2013



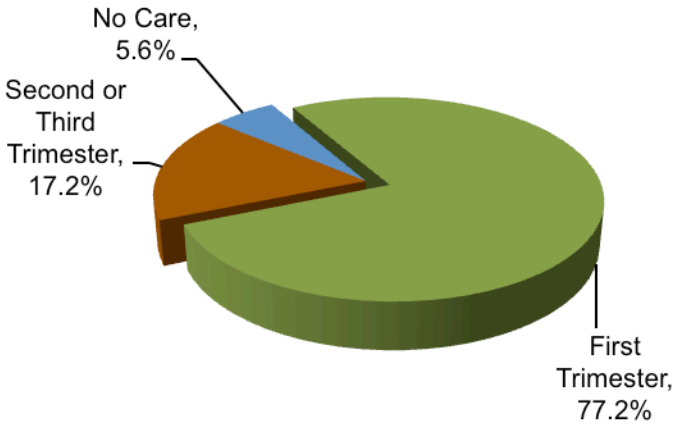
In 2013, there were significantly lower estimates of mothers without first trimester prenatal care in Maui County compared to the overall state estimate. Of particular concern is that 30% of pregnant women in Hawaii County reported not receiving first trimester prenatal care.

Source: Hawaii State Department of Health, Office of Health Status Monitoring.
Note: Limited to Resident Population and 2013 data is provisional.

Program Highlight:

Figure 3.6 Enrollment into Prenatal Care by Trimester, Hawaii WIC Program: 2011

The **WIC** program for low-income women and their young children determines if all pregnant participants have established prenatal care with a health maintenance organization, clinic or private physician upon enrollment into WIC. Pregnant women who do not have prenatal care are referred to local providers and to Medicaid if insurance coverage is needed. Many of the local WIC agencies are co-located within community health centers and clients can easily access prenatal care in the same location. Data from the 2011 Pregnancy Nutrition Surveillance System indicated that 77.2% of 9,243 Hawaii pregnant WIC clients had entered prenatal care in their first trimester, which was lower than the 2011 national average of 83.1%.[14] Pregnant WIC clients with no prenatal care (5.6%) in 2011 was also higher than the national average of 4.1% in 2011.



Source: Centers for Disease Control and Prevention, PNSS.
Note: Prenatal care refers to medical care and is independent of entry into WIC.

Other Program Activities:

- The Maternal and Child Health Branch's (MCHB) **Perinatal Support Services** program provides support services to high-risk pregnant women up to six months postpartum. Program services are located at seven sites in Honolulu, Maui, Molokai and Kauai. Pregnant women are screened for medical issues, psychosocial risks and environmental factors every trimester and in the interconception period. Services include community outreach, education, and assistance with Medicaid applications to improve access to early prenatal care.
- Through the MCHB **Hawaii Home Visiting Network** for at-risk families with children 0-3 years old, the MCHB promotes early access to prenatal care and health insurance for mothers and children. Home visiting programs collect data on enrolled pregnant women who receive their first prenatal care visit before the end of the second trimester.
- From 1999-2014, the MCHB **Big Island Perinatal Health Disparities Project** provided support services to address disparities in perinatal health and birth outcomes which included improving access to prenatal care through assistance to secure health insurance, transportation, translation services and prenatal care.
    - The project also worked with four **Local Area Consortia** to identify and implement actions to address issues such as increasing access to care which included three Prenatal Action Summits in 2012-2013 that addressed critical access issues and supported implementation of action plans to improve birth outcomes.
- The MCHB also contracts with the **Healthy Mothers, Healthy Babies Coalition of Hawaii** to coordinate provider trainings on best practices to support healthy client decision-making, such as the importance of early and ongoing prenatal care. The coalition also manages the pregnancy referral/information phoneline and website, which includes prenatal care resource information. The coalition implements "Text4baby" and has a website that includes information on the importance of early and continuous prenatal care. In addition, the coalition convenes the Perinatal Advocacy Network, a statewide perinatal/women's health stakeholder group that discusses service system issues and needs.

Alcohol During Pregnancy

Goal: To Increase Abstinence from Alcohol Among Pregnant Women

Issue:

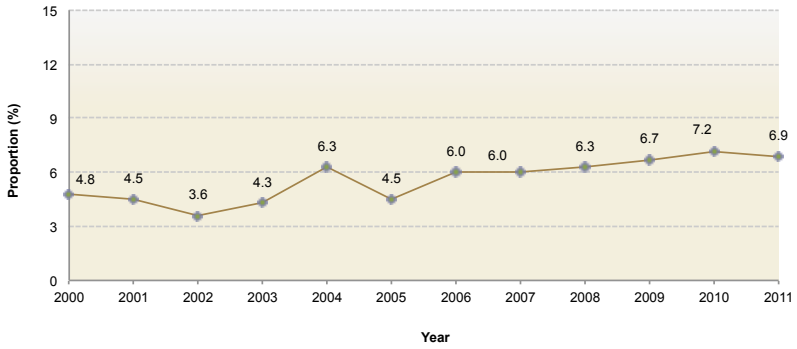
A range of harmful effects, including stillbirth, low birth weight, preterm delivery and fetal alcohol syndrome, have been associated with prenatal use of alcohol. Consumption of alcohol at any time during pregnancy is considered unsafe to the developing fetus. About one in 12 pregnant women in the United States report alcohol use, and about one in 30 report binge drinking (having five or more drinks at one time).[7,15]

Healthy People 2020 Objective:

Increase abstinence from alcohol, cigarettes and illicit drugs among pregnant women, including increasing abstinence from alcohol to 98.3% and abstinence from binge drinking to 100%.

Population-Based Data:

Figure 3.7 State of Hawaii, Alcohol Use During the Last Three Months of Pregnancy: 2000-2011

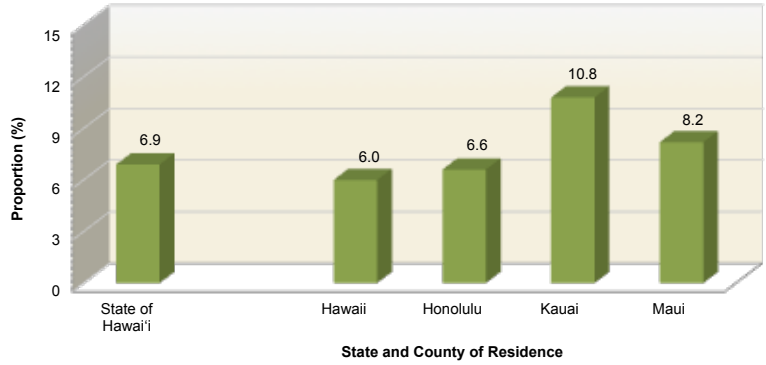


Source: Hawaii State Department of Health, Family Health Services Division, Maternal and Child Health Branch, Pregnancy Risk Assessment Monitoring System.

In 2008 among 29 states that reported Pregnancy Risk Assessment Monitoring System data, estimates of drinking alcohol during the last three months of pregnancy ranged from 3% in West Virginia to 12.1% in Vermont. [16]

In Hawaii, approximately 7% of women reported using alcohol during the last three months of pregnancy in 2011. This is a two-fold increase from 2002, when only 3.6% of women reported alcohol use during the last three months of pregnancy.

Figure 3.8 State of Hawaii, Alcohol Use During the Last Three Months of Pregnancy by County of Residence: 2009-2011



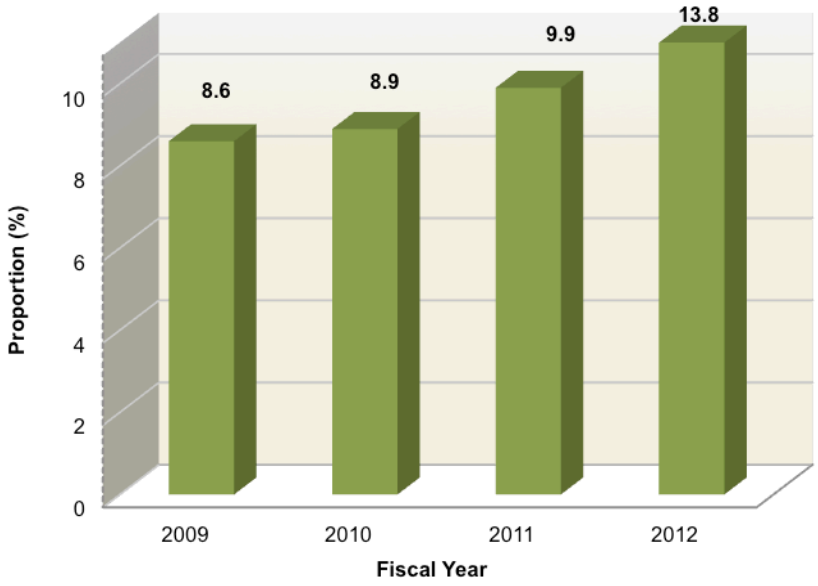
Source: Hawaii State Department of Health, Family Health Services Division, Maternal and Child Health Branch, Pregnancy Risk Assessment Monitoring System.

In Hawaii, data aggregated from 2009-2011 shows higher estimates of women who reported using alcohol during the last three months of pregnancy in Kauai and Maui counties.

Program Highlight:

Figure 3.9 Clients Reporting Alcohol Use during Pregnancy in Perinatal Support Services Program: 2009-2012

The Maternal and Child Health Branch's **Perinatal Support Services** program provides support services to high-risk women during pregnancy and up to six months after birth. Program services are located at seven sites in Honolulu, Maui, Molokai and Kauai and include health education on the harmful effects of alcohol use on the developing fetus. Motivational interviewing techniques are used to encourage healthy behaviors. In Fiscal Year 2012, of the 1,534 clients who were screened, 13.8% reported alcohol use during pregnancy. A steady increase has been seen since 2009, when the rate was8.6% . Perinatal Support Services provides services to high-risk clients with higher rates of alcohol use than the general population of women in Hawaii confirming the need to target services for these women.



Source: Hawaii State Department of Health, Family Health Services Division, Maternal and Child Health Branch, Perinatal Support Services Program. Data reflects fiscal year (July 1-June 30).

Other Program Activities:

- Other division programs serving pregnant women, including the **Family Planning Program**, the **Big Island Perinatal Health Disparity Project** (1999-2014) and **WIC,** routinely screen and provide appropriate referral services for alcohol use.
    - Preconception care counseling and health information, including the effects that alcohol can have on birth and throughout one's life, are part of the services that the statewide Family Planning Program offers to its clients.
- From July 2011 to June 2013, the Maternal and Child Health Branch awarded two **Perinatal Support Services triage** contracts for intervention services aimed at pregnant women struggling with substance abuse, including alcohol abuse. Both sites were on Oahu: PATH Clinic and the Waianae Coast Comprehensive Health Center. These programs employ open referral systems so women can access services regardless of where they live.
- Preventing the consumption of alcohol by pregnant women is a major goal of the **Fetal Alcohol Spectrum Disorders** program. Fetal alcohol specturm disorders are the range of adverse health effects that can occur in a child whose mother drank alcohol during pregnancy. Effects may include physical, mental, behavioral and/or learning disabilities that have lifelong implications for the child's well-being. Consumption of alcohol by women during their pregnancy is the sole cause of such disorders. In 2013, the division was not able to sustain funding for a fetal alcohol specturm disorders coordinator position, but continues to staff the state Fetal Alcohol Spectrum Disorders Task Force, which is comprised of private/public partners charged with building a system of services to prevent and address the needs of those diagnosed with such disorders and their families. Prevention activities include increasing awareness of fetal alcohol specturm disorders through educational outreach; supporting public policies, such as posting warning signage about the dangers of alcohol consumption during pregnancy; supporting community-based perinatal screening; promoting evidence-based practices; utilizing national resources to train medical and health service providers on the importance of screening women of reproductive age for alcohol use; and identifying/diagnosing children with fetal alcohol specturm disorders.

Smoking During Pregnancy

Goal: To Increase Abstinence from Smoking Among Pregnant Women

Issue:

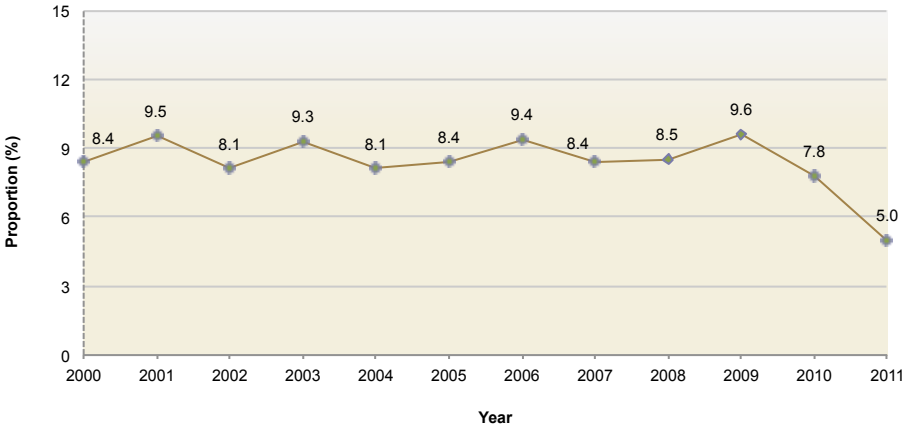
Birth weight is the single most important determinant of a newborn's survival during the first year. Maternal smoking during pregnancy has been directly related to low birth weight. A range of harmful effects, including stillbirth, low birth weight and preterm delivery, have been associated with prenatal use of tobacco.[7]

Healthy People 2020 Objective:

Increase abstinence from alcohol, cigarettes and illicit drugs among pregnant women, including increasing abstinence from cigarette smoking to 98.6% and increasing smoking cessation during pregnancy.

Population-Based Data:

Figure 3.10 State of Hawaii, Smoking During the Last Three Months of Pregnancy: 2000-2011

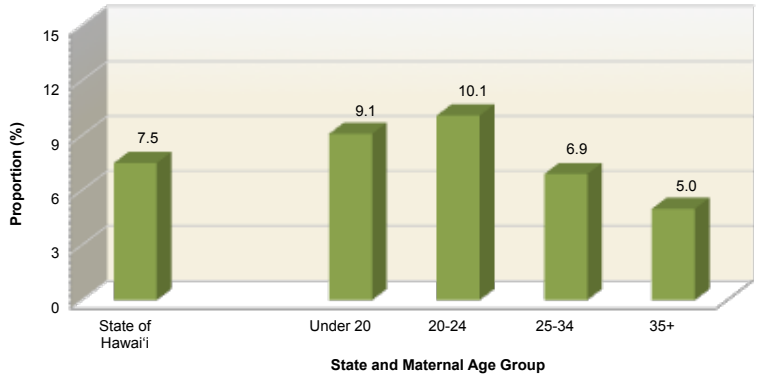


Source: Hawaii State Department of Health, Family Health Services Division, Maternal and Child Health Branch, Pregnancy Risk Assessment Monitoring System.

In 2008 among 29 states that reported Pregnancy Risk Assessment Monitoring System data, estimates for smoking during the last three months of pregnancy ranged from 5.1% in Utah to 28.7% in West Virginia.[16]

In Hawaii, there has been some change in self-reported smoking during the last three months of pregnancy since 2000. In 2011, an estimated 5% of pregnant women who had a live birth in Hawaii reported smoking during pregnancy. Since 2009, the rate has almost been cut in half.

Figure 3.11 State of Hawaii, Smoking During the Last Three Months of Pregnancy by Maternal Age: 2009-2011



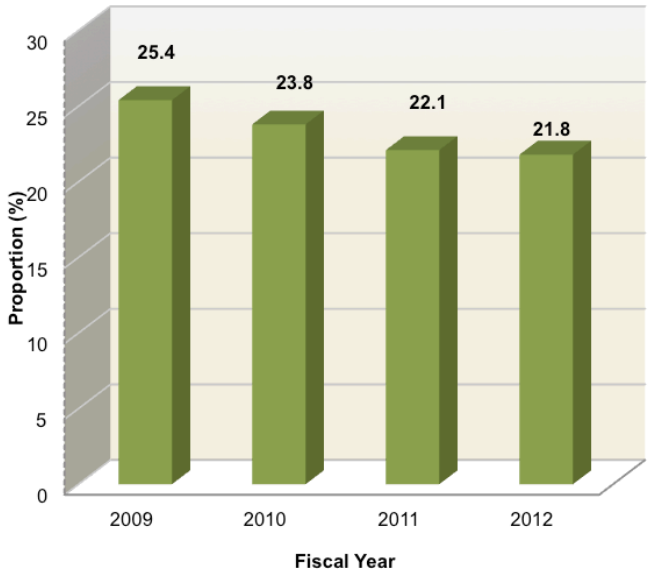
Source: Hawaii State Department of Health, Family Health Services Division, Maternal and Child Health Branch, Pregnancy Risk Assessment Monitoring System.

In Hawaii, data aggregated from 2009-2011 shows higher estimates of women who reported smoking during the last three months of pregnancy among those younger than 25 years of age, with the highest estimate among those 20-24 years of age.

Program Highlight:

Figure 3.12 Clients Reporting Smoking During Pregnancy in Perinatal Support Services Program: 2009-2012

The Maternal and Child Health Branch's (MCHB) **Perinatal Support Services** program provides support services to high-risk pregnant women prenatally and up to six months after birth. Program services are located at seven sites in Honolulu, Maui, Molokai and Kauai. Perinatal Support Services provides health education on the harmful effects of smoking on the developing fetus as well as harm reduction advice for pregnant women unable to discontinue or avoid cigarette smoking. Service providers are trained to utilize several techniques to support clients to reduce/quit smoking. In Fiscal Year 2009, about 25% of the 1,789 clients who were screened reported smoking during pregnancy. This proportion has declined over time with less than 22% of clients reporting smoking during their pregnancy in Fiscal Year 2012. Perinatal Support Services provides services to high-risk clients with higher rates of smoking than seen in the general population of women in Hawaii confirming the need to serve these women.



Source: Hawaii State Department of Health, Family Health Services Division, Maternal and Child Health Branch, Perinatal Support Services Program. Data reflects fiscal year (July 1-June 30).

In addition to the health benefits associated with quitting smoking, research finds that every $1 that Hawaii invests in tobacco cessation has a potential return on investment of $1.20. [iii]

Other Program Activities:

- All **perinatal health program** service contracts, including **Perinatal Support Services, Family Planning,** and the **Big Island Perinatal Health Disparity Project** (1999-2014), include activities to discourage smoking in pregnancy. All pregnant women are screened for cigarette smoking and other tobacco exposure in their living environments. The brief intervention method is used for those that screen positive for cigarette smoking to assess their readiness to change. Motivational interviewing is used to encourage pregnant women to quit smoking cigarettes and/or adopt harm reduction behaviors. Case management, follow-up and continued support is offered throughout pregnancy and up to six months after birth to prevent relapse of smoking behavior.
- The MCHB **Family Planning Program** performs risk assessment screening for smoking among clients and offers education/referrals to encourage cessation. As of 2011, six of the Perinatal Support Services providers are co-located with Family Planning Program providers to assure ongoing assessment and to support smoking cessation before and during pregnancy as well as following delivery, when the chance of relapse is high. The MCHB **perinatal health program** quarterly convenes the **Perinatal Smoking Workgroup**, which is comprised of key public and private stakeholders who promote strategies for smoking cessation for women before, during and after pregnancy.
- The MCHB **Hawaii Home Visiting Network** for at-risk families with children 0-3 years old promotes access to prenatal care and tobacco cessation. Home visiting programs survey mothers and pregnant women at enrollment and at 36 weeks of the pregnancy. If the woman currently smokes, home visitors determine her readiness to quit and refer her to the Tobacco Quitline.
- The **WIC** Services Branch, which serves low-income women and their young children, routinely screens for tobacco use and secondhand smoke within the home among all enrolling participants. All participants are informed of the dangers of tobacco use during pregnancy and provided with appropriate community referrals.

Prematurity

Goal: To Reduce the Number of Premature Births

Issue:

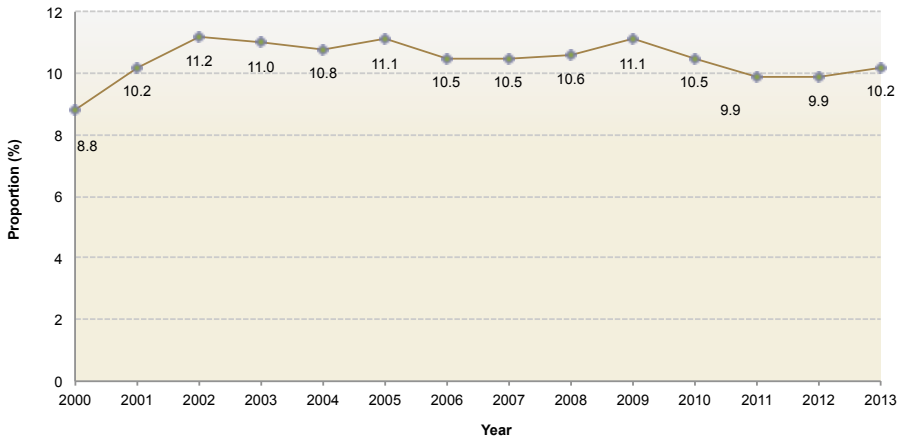
Premature births are the leading cause of neonatal deaths and are associated with birth defects and long-term health problems. Some risk factors include a prior premature birth, spontaneous abortion, low pre-pregnancy weight, and the use of alcohol, tobacco or other drugs during pregnancy. The March of Dimes estimates that about 40% of premature births occur spontaneously without any risk factors. Early identification and prevention of known risk factors are a main focus for prevention programs.[7]

Healthy People 2020 Objective:

Reduce preterm births to no more than 11.4 percent of all live births.

Population-Based Data:

Figure 3.13 State of Hawaii, Preterm Births (<37 weeks): 2000-2013

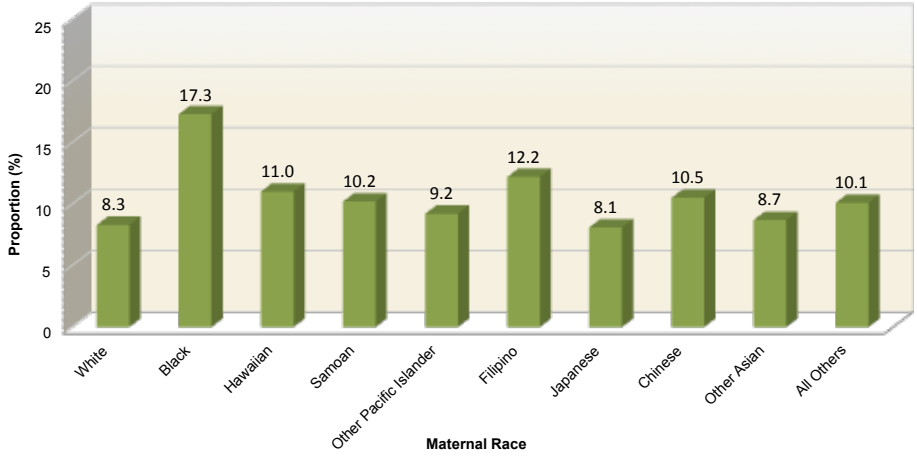


Source: Hawaii State Department of Health, Office of Health Status Monitoring. Note: Preterm Delivery estimates are based on clinical estimate of gestation and will vary from estimates based on last menstrual period. Note: Limited to Resident Population and 2013 data is provisional.

Nationally, an estimated 12.2% of all live births in 2009 were preterm.[17]

In Hawaii, there has been little change in the preterm birth rate since 2001, when the rate was 10.2%. However, there may be some improvement — the preterm birth rate was at 10.2% in 2013 after rising to 11.0% or higher in 2002, 2003, 2005 and 2009.

Figure 3.14 State of Hawaii, Preterm Births (<37 weeks) by Maternal Race: 2013



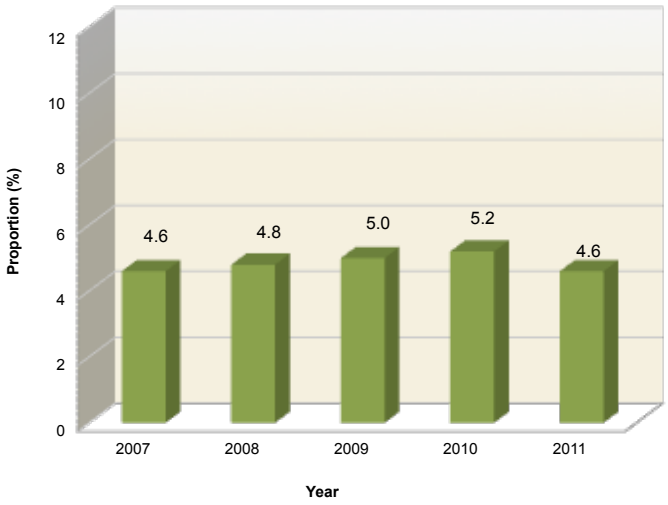
Source: Hawaii State Department of Health, Office of Health Status Monitoring. Note: Preterm Delivery estimates are based on clinical estimate of gestation and will vary from estimates based on last menstrual period. Note: Limited to Resident Population and 2013 data is provisional.

In 2013, there were higher estimates of preterm births among Black, Filipino, Hawaiian, Chinese, Samoan and “All other” mothers when compared to the overall state estimate of 10.2%. Slightly higher rates were seen among “other Pacific Islander” mothers and lower estimates among White, Japanese, and “Other Asian” mothers.

Program Highlight:

Figure 3.15 Premature Delivery Among WIC Clients: 2007-2011

WIC provides low-income women and their children up to age 5 with nutritious supplemental foods, nutrition counseling, and support services to improve birth and health outcomes. WIC conducts screening and provides one-on-one counseling for pregnant women to facilitate healthy behaviors (i.e., ideal weight gain, smoking cessation, abstinence of alcohol and/or drugs, adequate diet and referrals to community resources) associated with ideal birth weights. Data from the Pregnancy Nutrition Surveillance System indicates a slow increase in the rate of premature delivery from 2007 with a drop in 2011. In 2011, an estimated 4.6% of 9,213 pregnant Hawaii WIC clients had a preterm delivery, compared with the national WIC average of 10.5% in 2011.[14]



Source: Centers for Disease Control and Prevention, PNSS.

In addition to preventing the many adverse health effects associated with preterm birth, research finds that the nation's preterm birth rate comes with a heavy economic burden. According to an Institute of Medicine report released in 2006, preterm births cost the nation $26 billion every year or more than $51,000 per infant. Those costs include direct medical care, special education for infants with learning disabilities, and losses in productivity.[Iv]

Other Program Activities:

- The Maternal and Child Health Branch's (MCHB) **perinatal health programs** provide support services to high-risk pregnant women to prevent preterm birth and low-birth weight infants.
    - **Perinatal Support Services** are located at seven sites in Honolulu, Maui, Molokai and Kauai. Pregnant women are screened for psychosocial, behavioral and environmental risk factors and conditions and receive individual or group health education to address major risk factors that contribute to the incidence of preterm birth and low-birth weight infants.
    - From 1999-2014, the **Big Island Perinatal Health Disparity Project** provided support services to high-risk pregnant women to help prevent preterm birth by encouraging healthy behaviors during pregnancy, such as improved nutrition, cessation of smoking, abstaining from alcohol or drugs, and reducing stress.
- The MCHB Women's Health Section contracts with the **Healthy Mothers, Healthy Babies Coalition of Hawaii** to facilitate perinatal health program trainings, needs assessments and meetings with statewide contracted perinatal providers and stakeholders to ensure healthier birth outcomes. The coalition is also the contract provider for a statewide information and referral phone line and website.
- In 2013, the Department of Health was selected to participate in the National Governors Learning Network on Improving Birth Outcomes to assist with the development, implementation and coordination of key policies and initiatives to improve birth outcomes. This ties into the health department's commitment to reduce infant mortality and improve birth outcomes, as is identified in the state's Early Childhood Action Strategy. A broad group of more than 70 perinatal, child and women's health stakeholders, including public health workers, advocates, consumers and health care providers, have been involved in the activities of the **Hawaii Partners Learning Network on Improving Birth Outcomes** as well as efforts to improve women's health and infant health before, during and after pregnancy. Areas of focus include, but are not limited to, prevention of unintended and teen pregnancy, preconception and interconception care, and interventions that promote planned pregnancies. On the legislative side, efforts included a bill (which didn't pass) to establish an ongoing maternal and child health collaborative and create a comprehensive maternal and child health quality improvement program coordinated within the health department.

Infant Safe Sleep Environment

Goal: To Reduce Infant Deaths Due to Unsafe Sleep Environments

Issue:

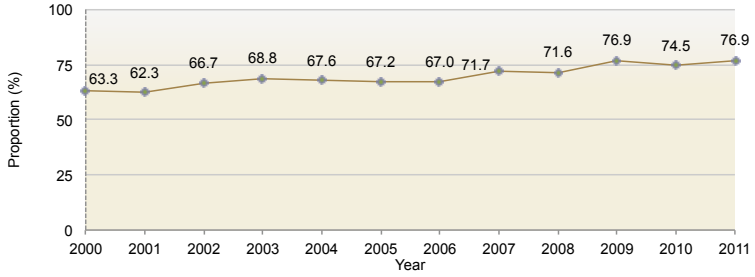
Suffocation is the leading cause of fatal injury in infants younger than 1 year of age. Suffocation may occur because of unsafe sleeping positions and practices. Research has shown that placing an infant to sleep on their back can reduce the risk of death from suffocation and Sudden Unexpected Infant Death (which may include Sudden Infant Death Syndrome or SIDS). Other safe sleep practices include using safety-approved cribs; keeping the car and home smoke-free; keeping pillows, soft bedding or toys out of the crib; keeping infants in cribs to sleep (and not in adult beds); and not overdressing infants when they sleep.[18]

Healthy People 2020 Objective:

Increase the proportion of infants placed on their backs to sleep to 75.9%.

Population-Based Data:

Figure 3.16 State of Hawaii, Back Sleeping Position: 2000-2011

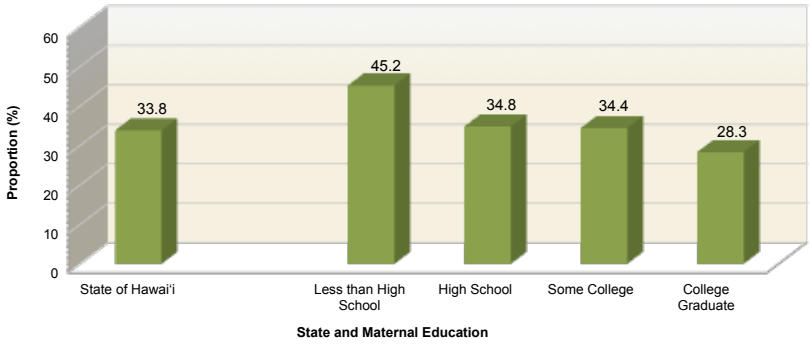


Source: Hawaii State Department of Health, Family Health Services Division, Maternal and Child Health Branch, Pregnancy Risk Assessment Monitoring System.
Note: Slight differences in the definition of back-sleeping position at the Centers for Disease Control and Prevention (CDC) and that were used for Healthy People 2020 excludes responses that checked more than one sleep position option. Whereas, mothers who selected more than one sleep position in Hawaii were classified as "not back sleeping."

In 2008 among 29 states that reported Pregnancy Risk Assessment Monitoring System data, estimates for back-sleeping position ranged from 55.9% in Mississippi to 86.0% in Vermont, with Hawaii reporting 73.8%.[16] Estimates for back-sleeping prevalence are calculated differently in Hawaii than nationally (see graph note for details).

In Hawaii, there has been steady improvement in sleep positioning since 2000, with an estimated 76.9% of parents placing their infants to sleep on their backs in 2011.

Figure 3.17 State of Hawaii, Proportion of Women Who Report Co-sleeping by Maternal Education: 2009-2011

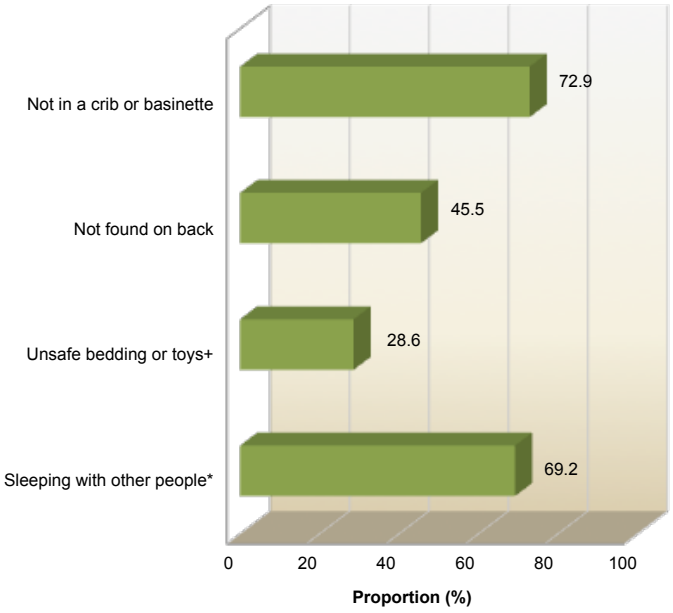


Source: Hawaii State Department of Health, Family Health Services Division, Maternal and Child Health Branch, Pregnancy Risk Assessment Monitoring System.

In Hawaii, data aggregated from 2009-2011 shows higher estimates of women who reported always/often co-sleeping with their infant among those with lower maternal education. The highest estimate of co-sleeping of 45.2% was among mothers who reported less than a high school education, and more than a third of mothers with a high school education or some college education reported co-sleeping.

Program Highlight:

Figure 3.18 Factors Involved in Sleep-Related Infant Deaths: 2003-2008



+ Limited to infants found in a crib or basinette (N=28).

* Limited to infants not in a crib or basinette (N=78).

Source: Hawaii State Department of Health, Family Health Services Division, Maternal and Child Health Branch, Child Death Review Program Data.

The Maternal and Child Health Branch (MCHB) provides leadership for **Safe Sleep Hawaii**, a statewide committee that promotes life-saving safe sleep techniques, policies and education for parents, teachers, doctors, nurses and other caregivers. Committee members include representatives from the Department of Health Injury Prevention and Control Program, Department of Education, Department of Human Services, hospitals, the military, child care agencies and the community.

The committee utilizes information from various local and national sources, including data from the **Hawaii Child Death Review Program**. This data identified 122 infants who died in their sleep in Hawaii during a six-year time period. Unsafe sleeping factors were associated with many of the deaths. About 73% of deaths occurred when an infant was not sleeping in a crib or bassinette; nearly half the infants were not found in a back-sleeping position; and the infant was sleeping with another person in almost 70% of deaths in which the infant was not in a crib or bassinette.

Safe Sleep Hawaii promotes information on safe sleep environments through the distribution of a “Keep Me Safe When I Sleep” handout and DVD. The resources provide information on safe sleeping conditions, including infant positioning, smoke-free environments, optimal sleep clothing, co-sleeping, and firm sleeping surfaces that are free of pillows, toys and soft bedding. In 2010, Safe Sleep Hawaii launched its website at www.safesleephawaii.org.

Other Program Activities:

- The MCHB administers the **Child Death Review Program**, which conducts systematic, multidisciplinary reviews of factors that contribute to the deaths of children younger than 18 years of age. The reviews are conducted to provide information that can help promote child safety and shape effective public health interventions. As such, the Child Death Review Program reviews data on infant sleep-related deaths to pinpoint areas in need of intervention. For example, on the program’s recommendation, domestic violence shelters were surveyed and several were found to have no policy or provision for safe sleep practices. To address the safety gap, educational information was provided and the Hawaii State Coalition Against Domestic Violence decided to purchase portable cribs for use in the shelters.
- The MCHB **Parenting Support Programs** publish the **Keiki O’ Hawaii** informational packet, which includes “Keep Me Safe When I Sleep” information. With the help of birthing hospitals, the packet is distributed to all families of newborns in Hawai`i.
- The MCHB **Hawaii Home Visiting Network** for at-risk families with children 0-3 years old promotes education on safe sleep. All enrolled families receive information or training on preventing child injuries, including information on safe sleep practices.
- **WIC,** which serves low-income women and their young children**,** routinely screens participants for tobacco use and secondhand smoke within the home due to their association with infant deaths. All participants are informed of the dangers of tobacco use in the household and provided with appropriate community referrals.

Goal: To Increase the Percent of Mothers Who Breastfeed Their Infants

Issue:

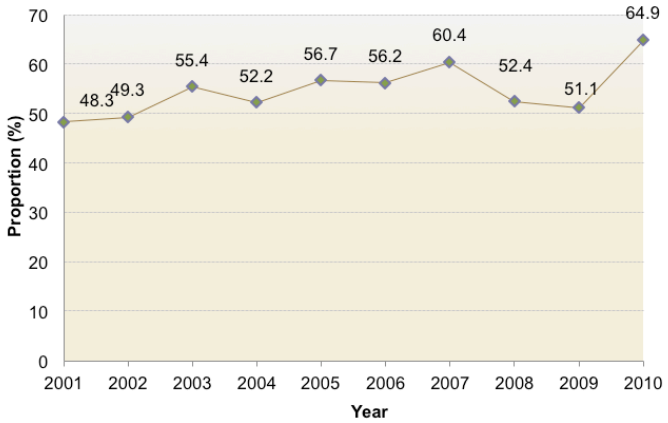
Human milk is the preferred food for all infants, including premature and sick newborns. Exclusive breastfeeding provides ideal nutrition and is sufficient to support optimal growth and development for approximately the first six months after birth. The health advantages of breastfeeding are indisputable and include nutritional, immunological and psychological benefits to both mother and infant as well as economic benefits.[7] Breastfeeding has also been shown to lower the risk of Sudden Infant Death Syndrome (SIDS).

Healthy People 2020 Objective:

Increase the proportion of mothers who breastfeed their babies through six months to 60.5%.

Population-Based Data:

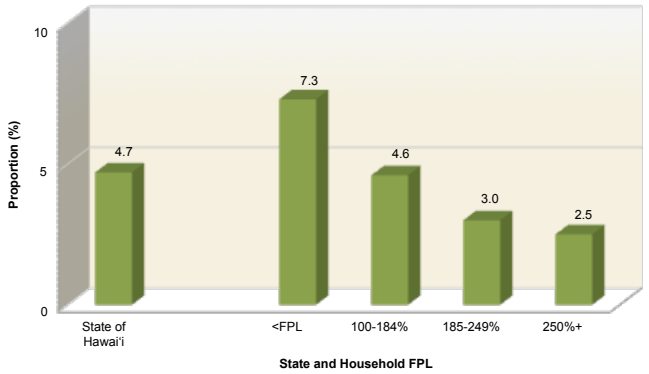
Figure 3.19 State of Hawaii, Breastfeeding at Six Months, Birth Cohorts: 2001-2010



Source: Centers for Disease Control and Prevention. National Immunization Survey, 2001-2010 Birth Cohorts. http://www.cdc.gov/breastfeeding/data/NIS_data. Provisional Data for Hawaii for 2010 is the latest available and can be found online at http://www.cdc.gov/breastfeeding/data/reportcard2.htm.

There was a steady increase in the proportion of infants in Hawaii who were breastfed at six months from 2001 to 2007, followed by a decrease in 2008 and 2009. However, according to 2010 provisional data, there was a large increase in children breastfed at six months between 2009 and 2010, from 51.1% to 64.9%. This estimate surpasses the national percentage (47.2%) for births in 2009 and exceeds the Healthy People 2020 objective of 60.5%.[19]

Figure 3.20 State of Hawaii, No Breastfeeding Initiation by Household Federal Poverty Level: 2009-2011



Source: Hawaii State Department of Health, Family Health Services Division, Maternal and Child Health Branch, Pregnancy Risk Assessment Monitoring System.

In Hawaii, aggregated Pregnancy Risk Assessment Monitoring System data from 2009-2011 showed the highest estimates of women who reported never trying to breastfeed among those living in households below the federal poverty level. Those in households at 101%-184% of the federal poverty level also had higher estimates of not breastfeeding compared to those that lived in households at or above 185% of the federal poverty level.

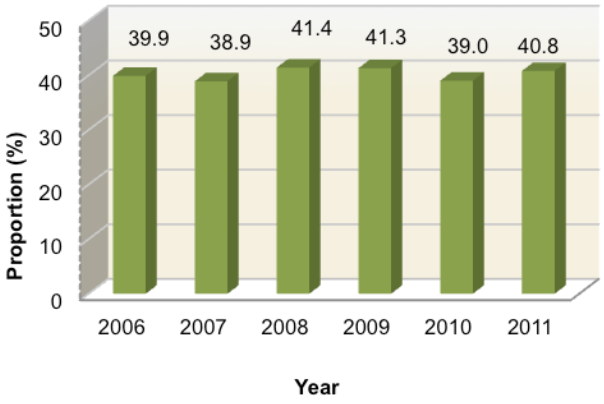
Researchers have found that in addition to the many health advantages that breastfeeding offers babies and children, it also saves considerable medical costs. One study from the U.S. Department of Agriculture Economic Research Service estimated that increased breastfeeding rates could save the country a whopping $3.6 billion.[v]

Program Highlight:

Figure 3.21 State of Hawaii, Breastfeeding at Six Months Among Mothers in the WIC Program Who Initiated Breastfeeding: 2006-2011

WIC provides low-income women and their children up to age 5 years old with nutritious supplemental foods, nutrition counseling and support services.

Because a major goal of the WIC Program is to improve the nutritional status of infants, WIC mothers are encouraged to breastfeed their infants as the optimal infant feeding choice. Mothers receive information, counseling, incentives and on-going support (including breast pumps) while breastfeeding. Breastfeeding mothers are eligible to participate in WIC six months longer than non-breastfeeding mothers, and those who exclusively breastfeed their infants also receive an enhanced food package.



Source: Centers for Disease Control and Prevention. PedNSS.

Data from the 2011 Pediatric Nutrition Surveillance System indicated that 40.8% of 9,659 Hawaii WIC clients continued to breastfeed at six months. This was higher than the 2011 national average of 26%.[14] WIC has expanded its breastfeeding peer counselor training program to increase the number of WIC peer counselors who can provide effective breastfeeding information and support to their clients.

WIC also provides information on the **Hawaii Mothers Breastfeeding Act** to all local service agencies. The act protects women's ability to breastfeed and express milk at work during regular break times, encourages employers to establish policies to accommodate such activities, and protects women's right to breastfeed in public places. A WIC pilot program that provides a breast pump to exclusively nursing and eligible mothers with a goal of extending the duration of breastfeeding is under evaluation. Pumps are also be available to WIC moms (except those in the military) through the federal Affordable Care Act.

Other Program Activities:

- FHSD collaborates with the Healthy Hawaii Initiative to facilitate implementation of the **Baby-Friendly Hospital Initiative** in all maternity facilities across the state. The goal is to encourage the adoption of policies and best practices that support exclusive breastfeeding. In 2013, more than 275 professionals from hospitals statewide were trained in best practices and skills to support exclusive breastfeeding among new moms. Technical assistance to facilitate the adoption of exclusive breastfeeding policies and practices was also provided to hospitals. During the course of the project, 778 professionals from 11 maternity care hospitals were trained. Three Hawaii hospitals are now in the final stages of applying for an official "Baby-Friendly" designation from Baby-Friendly USA Inc., the national authority for the Baby-Friendly Hospital Initiative in the United States.
- The Maternal and Child Health Branch's (MCHB) **Perinatal Support Services** contracts with providers to ensure comprehensive breastfeeding education and support to roughly 1,500 high-risk pregnant women annually at seven sites in Honolulu, Maui, Molokai and Kauai. The education is offered during pregnancy and up to six months after birth when they may encounter difficulties with exclusive breastfeeding.
- The MCHB Women's Health Section contracts the Healthy Mothers Healthy Babies Coalition of Hawaii to administer a statewide **information and referral phone line and website** for pregnant women and their infants that includes information on breastfeeding and lactation support services. The coalition also oversees the Text4baby text messaging service, which provides free and ongoing education and support information, including breastfeeding information to all mothers during pregnancy and after birth.
- Form 1999-2014, the MCHB **Big Island Perinatal Health Disparity Project** provided education to high-risk pregnant women regarding breastfeeding. In addition, the project's community-based local area consortia work to promote acceptance of breastfeeding as a community norm by supporting the distribution of breastfeeding support pillows to new mothers at Kona Community Hospital. They also provide educational information to employers in the Hilo area on the importance of breastfeeding and practical tips on how to become a breastfeeding-friendly employer, such as designating pumping areas for employees.
- The MCHB **Hawaii Home Visiting Network** for at-risk families with children 0-3 years old promotes breastfeeding through health education and information during and after pregnancy.

Chlamydia

Goal: To Decrease the Rate of Chlamydia

Issue:

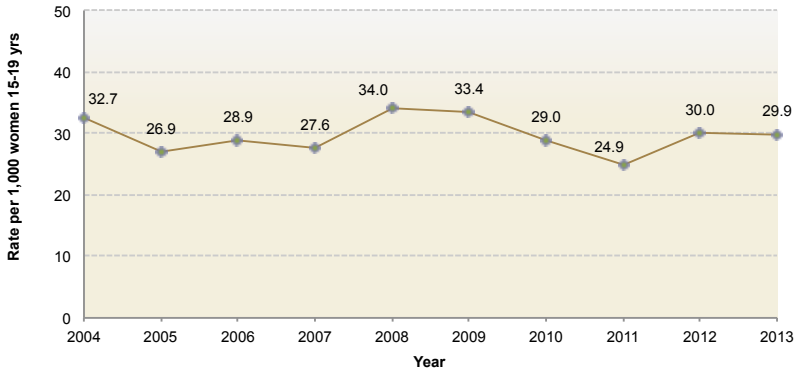
Chlamydia trachomatis infection is the most commonly reported sexually transmitted disease (STD) in the U.S., with more than 2.8 million new cases estimated to occur each year. Even though symptoms of chlamydia are usually mild or absent, serious complications can result in irreversible damage, such as infertility, and can happen before an infected individual even realizes she or he has the disease. Additionally, pregnant women infected with chlamydia can pass the infection to their newborns during delivery, potentially resulting in severe complications.[20] Chlamydia is transmitted during unprotected sexual activity.

Healthy People 2020 Objective:

Reduce the chlamydia infection rate among women 15-24 years of age attending family planning clinics to 6.7%.

Population-Based Data:

Figure 3.22 State of Hawaii, Chlamydia Cases Among Women Ages 15-19 Years Old: 2004-2013

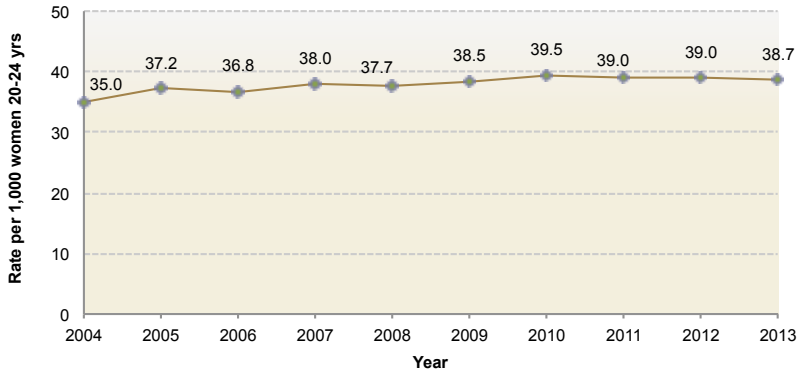


Source: Hawaii State Department of Health, Communicable Disease Division, STD/AIDS Prevention Services Branch.

In 2012, the rate of chlamydia in the U.S. was 32.9 cases per 1,000 women ages 15-19 years old, and 7.7 cases per 1,000 men ages 15-19 years old.[21]

In Hawaii, the rate of chlamydia cases in women ages 15-19 years old has remained relatively stable since 2004, ranging from a low of 24.9 cases per 1,000 women in 2011 to a high of 34 cases per 1,000 women in 2008. In 2012 (30.0) and 2013 (29.9), the rate was similar to the national estimate from 2012 (32.9).

Figure 3.23 State of Hawaii, Chlamydia Cases Among Women Ages 20-24 Years Old: 2004-2013



Source: Hawaii State Department of Health, Communicable Disease Division, STD/AIDS Prevention Services Branch.

In 2012, the rate of chlamydia in the U.S. was 37.0 cases per 1,000 women ages 20-24 years old, and 13.5 cases per 1,000 men ages 20-24 years old.[21]

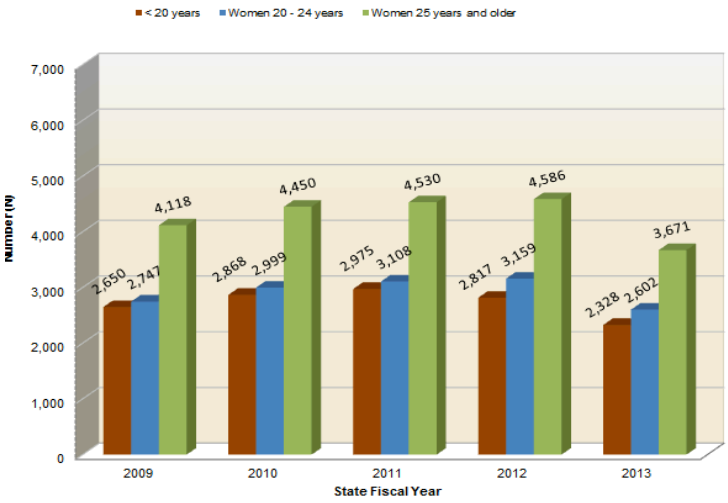
In Hawaii, the rate of chlamydia cases in women ages 20-24 years old has increased from 2004 to 2010, but the rate has remained stable at about 39 cases per 1,000 women since 2009. In 2012 (39.0) and 2013 (38.7), it was slightly higher than the national estimate from 2012 (37.0).

Recent research from the Centers for Disease Control and Prevention finds that sexually transmitted diseases cost the nation nearly $16 billion in direct medical costs each year. Chlamydia alone accounts for more than $516 million.[VI]

Program Highlight:

Figure 3.24 State of Hawaii, Chlamydia Testing Among Women in the Family Planning Program: 2009-2013

The Maternal and Child Health Branch's **Family Planning Program** ensures access to affordable reproductive health services to all individuals, with a priority on reaching low-income and hard-to-reach individuals. Chlamydia screenings at the 37 statewide Family Planning Program service sites are recommended for all sexually active women ages 25 years and younger at the first visit and annually thereafter. Testing is also recommended for all clients seeking pregnancy testing and emergency contraception. Among Family Planning Program clients, the proportion of chlamydia tests administered to women each year has remained stable since 2009, with about 27% of the tests occurring among women younger than 20 years of age, about 30% among women 20-24 years of age, and about 43% among women 25 years old and older.



Source: Hawaii State Department of Health, Family Health Services Division, Maternal and Child Health Branch, Family Planning Program. Data reflects fiscal year (July 1-June 30).

All clients who are sexually active receive counseling for STD/HIV prevention, including information on safer sex practices. Clinics may presumptively treat clients with symptoms of chlamydia. When the provider is notified of a positive test, the client is contacted and treatment is provided at no cost. Clients are encouraged to notify their partners so that they may seek treatment and the client can avoid re-infection. Re-screening appointments are scheduled three to four months after treatment to ensure the client is not reinfected.

Fourteen Family Planning Program health educators provide prevention education and target hard-to-reach and vulnerable populations, including adolescents, adult males, immigrants, low-income residents, under/uninsured residents, those with limited English proficiency, and the homeless. The educators coordinate with clinical providers to reach those in need of services.

Other Program Activities:

- To ensure screening, treatment and prevention of chlamydia reinfection, the Family Planning Program provides annual screening for all female patients younger than 25 years old and monitors the chlamydia screening rate for each provider. The program also promotes strategies that expand testing accessibility through walk-in and teen clinics and referrals from the STD/HIV prevention program.
- The Family Planning Program is collaborating with the University of Hawaii John A. Burns School of Medicine, Department of Obstetrics, Gynecology and Women's Health to implement a multipronged collaborative approach to best practices in education, treatment and screening for sexually transmitted infections, with a focus on chlamydia and adolescents through the Teen Clinic Care Network. This partnership will include Family Planning Program providers and is aimed at increasing chlamydia testing, treatment and prevention among teens. Other grant opportunities to develop teen-focused education and resources are being explored.
- In 2013, the Family Planning Program partnered with the California STD/HIV Prevention Training Center to provide clinician training on male reproductive health services. Forty-six Hawaii providers attended to increase their knowledge on STD/HIV clinical management strategies for male clients.
- Expedited partner therapy was signed into law in 2013 and allows patients diagnosed with chlamydia to deliver medication or a prescription to partners who are unlikely to seek medical treatment on their own. The law offers Family Planning Program providers another way to deliver timely treatment and reduce the risk of chlamydia reinfection among their patients.

Goal: To Decrease Risk Factors for Chronic Disease Among Women

Issue:

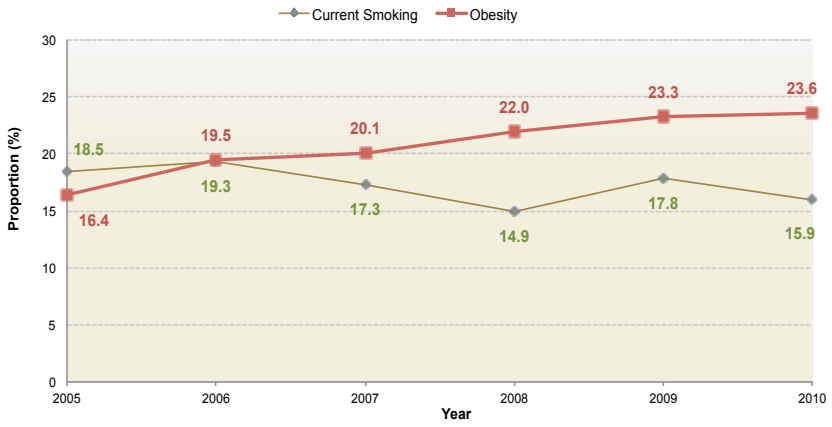
To impact population-level changes in the rates of chronic disease, primary prevention of such diseases should start as early as possible. Regular physical exams and health screenings are an important part of preventive strategies and help ensure that serious diseases and conditions are detected at their earliest stages, when treatment is often easier, more effective and less expensive. For example, smoking and obesity are two of the leading risk factors for developing a chronic disease and should be routinely assessed in all health-related visits. Many of the risk factors for chronic disease also impact birth outcomes.

Healthy People 2020 Objective:

Increase the proportion of women 18-44 years of age with a live birth who do not smoke and are at a healthy weight before pregnancy.

Population-Based Data:

Figure 3.25 State of Hawaii, Estimates of Current Smoking and Obesity Among Women of Reproductive Age (18-44), 2005-2010

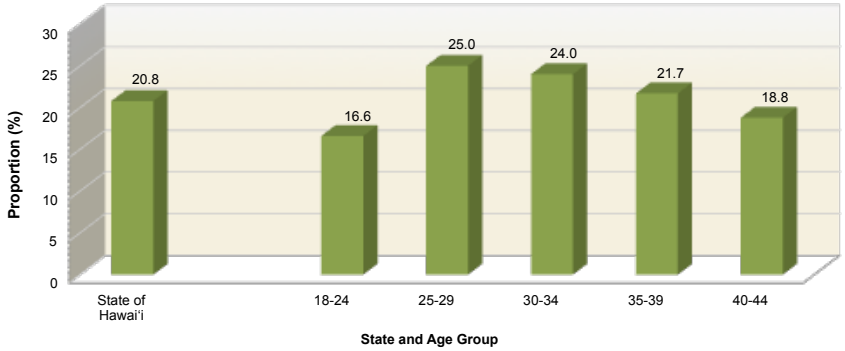


Source: Hawaii State Department of Health, Behavioral Risk Factor Surveillance System (BRFSS). Due to changes in survey methodology, data from BRFSS starting in 2011 is not directly comparable to data of previous years.

Nationally from 2001-2009, estimates of smoking among women of reproductive age declined to 18.8% (relative decrease of 27%), while obesity rates increased to 24.7% (relative increase of 35%).[22]

Since 2005, the estimates of current smoking in Hawaii have also declined among women of reproductive age from 18.5% in 2005 to 15.9% in 2010. However, during this same time frame there has been a substantial increase in obesity from 16.4% in 2005 to 23.6% in 2010 (relative increase of 44%).

Figure 3.26 State of Hawaii, Estimates of Obesity Among Women of Reproductive Age (18-44) by Age Group, 2005-2010



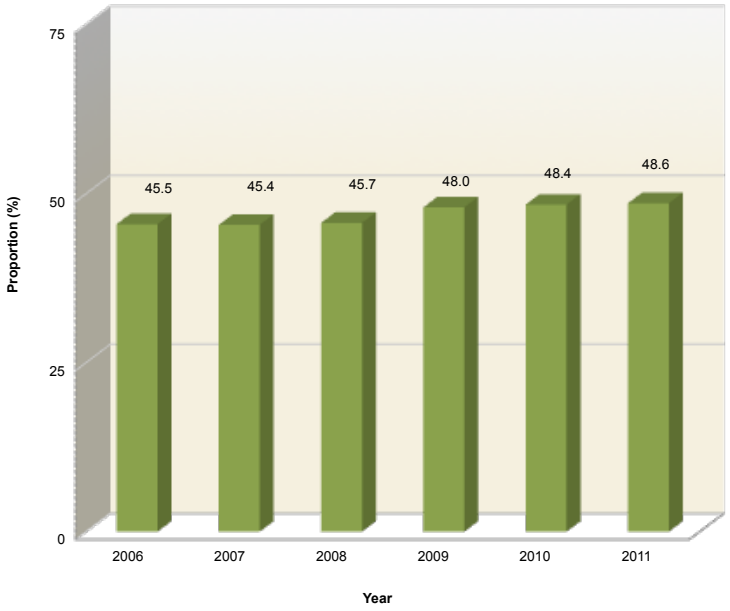
Data aggregated from 2005-2010 demonstrates that women younger than 25 and those older than 40 have obesity rates significantly below those of intermediate ages (25-39 years). The highest rateof obesity was found among a quarter of women ages 25-29 years old, and nearly the same estimate was found among those 30-34 years old.

Source: Hawaii State Department of Health, Behavioral Risk Factor Surveillance System (BRFSS).

Program Highlight:

Figure 3.27 State of Hawaii, Pre-pregnancy Overweight and Obesity Among Mothers in the WIC Program: 2006-2011

WIC provides low-income women and their children up to age 5 with nutritious supplemental foods, nutrition counseling, and support services to improve birth and health outcomes. WIC conducts screenings and provides one-on-one counseling for pregnant women to promote healthy behaviors (ideal weight gain, smoking cessation, abstinence of alcohol and/or drugs, adequate diet and referrals to community resources) associated with ideal birth weights. Data from the Pregnancy Nutrition Surveillance System indicates a small increase in overweight and obesity since 2007. In 2011, an estimated 48.6% of 11,242 Hawaii WIC clients were overweight or obese before pregnancy. This estimate is lower than the national average of 53.6% in 2011.[9]



Source: Centers for Disease Control and Prevention, PNSS.

Research has found that the medical burden of obesity accounts for nearly 10 percent of all medical spending and billions of dollars in annual medical costs. Among the nation's full-time employees, annual health costs attributable to obesity are more than $73 billion.[VII, VIII]

Other Program Activities:

- The Maternal and Child Health Branch's (MCHB) **Perinatal Support Services** program contracts with providers to screen approximately 1,500 high-risk pregnant women annually for behaviors and/or conditions that may place the woman and her fetus at greater risk for poor birth outcomes, including substance use, depression, domestic violence or intimate partner violence, chronic disease, poor nutrition, oral health and unhealthy living conditions. Program participants in Honolulu, Kauai, Maui and Molokai are screened in each pregnancy trimester and within the postpartum and interconception periods. Perinatal Support Services has seven providers who are co-located within family planning programs statewide. The co-location of service delivery offers an opportunity for ongoing support and resource accessibility for clients at risk for health problems.
- From 1999-2014, the MCHB **Big Island Perinatal Health Disparity Project** provided support services, including health education and risk assessment, to high-risk pregnant and postpartum women. Among the topics covered were nutrition; use of tobacco products, alcohol and drugs; oral health; the importance of periodic screening for diabetes, hypertension, cholesterol, fecal occult blood testing and STDs; and the importance of remaining physically active before, during and following pregnancy.
- As a result of the Department of Health being selected to join the National Governors Association's Learning Network on Improving Birth Outcomes, the **Hawaii Partners Learning Network on Improving Birth Outcomes** is engaged in collaborative efforts to promote a lifespan approach to healthy behaviors before, during and after pregnancy. The effort includes, but is not limited to, preventing and reducing smoking, promoting healthy weight gain, and education and resources on preconception and interconception care and reproductive life planning. An ongoing maternal and child health collaborative is planned to address the life course perspective and to support the health department's goals of improving coordination, overseeing implementation of evidence-based practices, and addressing the social determinants of health that affect women's health and birth outcomes.

Goal: To Reduce the Rate of Violence Against Women

Issue:

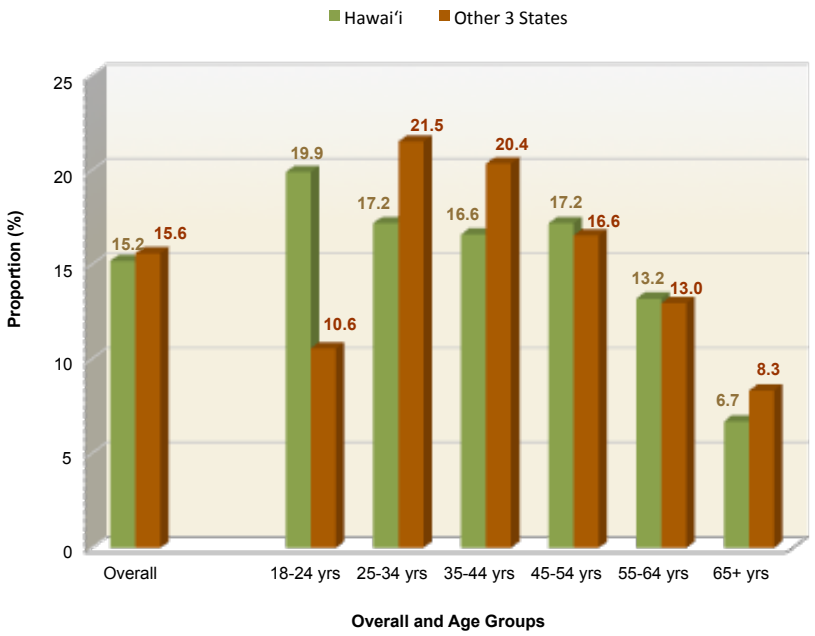
Intimate partner violence is a significant public health problem that involves people in a close relationship. The term "intimate partner" includes current and former spouses and dating partners. Intimate partner violence exists along a continuum, from a single episode of violence to ongoing battering, and includes four types of violence: physical violence, sexual violence, threats of physical or sexual violence, and emotional abuse. All forms of intimate partner violence are preventable, though knowledge about the factors that prevent such violence is lacking. However, a key to prevention is stopping the first time someone hurts another. CDC and others are working to better understand the developmental pathways and social circumstances that lead to this type of violence.[23,24]

Healthy People 2020 Objective:

Reduce physical assaults to 19.2 physical assaults per 1,000 population aged 12 years and older. Reduce violence by current or former intimate partners (developmental objective without target established). Reduce sexual violence (developmental objective without target established)

Population-Based Data:

Figure 3.28 State of Hawaii, Women Who Reported Ever Being Hit, Slapped, Kicked or Hurt in Any Way by an Intimate Partner: 2007



Source: Hawaii State Department of Health, Behavioral Risk Factor Surveillance System (BRFSS). 2007 represents the last year this question was administered by CDC as an optional module and also represents the latest available data in the survey.

Nationally, intimate partner violence results in an estimated 1,200 deaths and 2 million injuries among women each year.[23] Intimate partner violence has also been associated with adverse health conditions and health risk behaviors.[24]

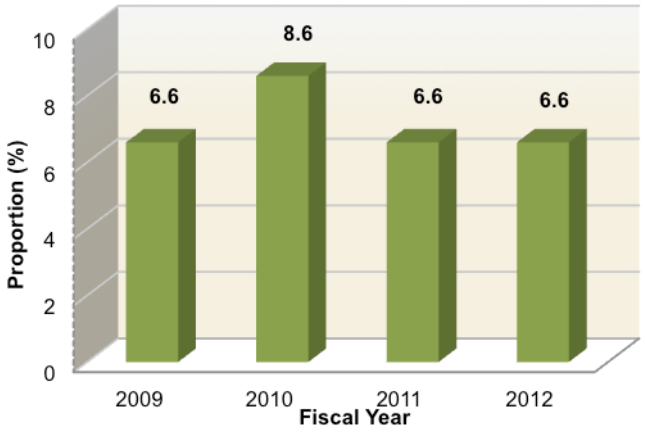
Four states, including Hawaii, asked about lifetime prevalence for intimate partner violence among women in 2007 as part of the Behavioral Risk Factor Surveillance System survey. An overall estimate of 15.6% of women in the three other states (Nebraska, Virginia and West Virginia) and an estimate of 15.2% in Hawaii reported ever having been physically abused by an intimate partner. Analysis by age group revealed that the prevalence of self-reported intimate partner violence among women in Hawaii was similar among all age groups compared to the three other states. The higher estimate shown in the youngest age group in Hawaii is not statistically different from the estimate in the three other states.

According to a 2003 report from the Centers for Disease Control and Prevention, the annual costs of intimate partner rape, physical assault and stalking topped $5.8 billion, with about $4.1 billion of such costs due to medical and mental health care services.[ix]

Program Highlight:

Figure 3.29 State of Hawaii, Clients Reporting Domestic Violence in Perinatal Support Services Program: 2009-2012

The Maternal and Child Health Branch's **Perinatal Support Services** contractors provide comprehensive preventive health screenings for behaviors and/or conditions, such as intimate partner or domestic violence, that may place the woman and her fetus at risk for poor birth outcomes. Contractors screen high-risk pregnant women annually at seven sites in Honolulu, Maui, Molokai and Kauai. In Fiscal Year 2012, 6.6% of 1,534 women had a positive screen for intimate partner or domestic violence, which reflects a small decline from 2010 when 8.6% of clients screened positive Women screened positive for intimate partner or domestic violence or sexual coercion receive ongoing counseling and support and are referred to behavioral health specialists and/or community resources to assure their and their family's immediate and future safety. Ongoing training is offered to Perinatal Support Services providers to increase provider knowledge and skills to effectively address this problem.



Source: Hawaii State Department of Health, Family Health Services Division, Maternal and Child Health Branch, Women's Health Section, Perinatal Health.
Note: Data reflects Fiscal year (July 1-June 30).

Other Program Activities:

- Domestic violence screening and referrals are required among FHSD-contracted services for women, including within **primary care** for the uninsured**, family planning,** the **Big Island Perinatal Health Disparity Project** (1999-2014) and support services for families with young children through the MCHB **Hawaii Home Visiting Network,** which targets families identified as at risk for child abuse.
- **The Violence Prevention Program** within the Maternal and Child Health Branch includes the Domestic Violence Fatality Review as well as domestic violence and sexual violence prevention activities.
    - The **Domestic Violence Fatality Review** examines the circumstances surrounding a death with the ultimate goal of reducing the incidence of domestic violence fatalities through a systematic, multidisciplinary retrospective review process.
    - A State **Sexual Violence Primary Prevention Strategic Plan** was completed to increase awareness of sexual violence, encourage healthy relationships and change social norms, with a focus on youth, young adults and immigrant populations. A planning committee, comprised of private and public partners, is implementing the plan through community efforts.
    - The University of Hawaii School of Medicine, Department of Psychology was contracted to pilot and evaluate sexual violence prevention curricula developed by the **Sex Abuse Treatment Center** and used with students from kindergarten through high school. Results have shown significant increases in knowledge within each grade level.
    - The University of Hawaii's Department of Psychiatry was contracted to develop a **Teen Dating Violence Prevention Training Manual**. Teen dating violence training is being conducted with youth provider agencies and will undergo evaluation.
    - The Hawaii Coalition Against Domestic Violence was contracted to develop a **State Domestic Violence Strategic Plan**.
    - The University of Hawaii was funded to develop a **sexual violence and domestic violence prevention campus infrastructure**, including policies and procedures to address incidents of sexual harassment, stalking, intimidation and verbal abuse. Through the university's Women's Center, the project was honored for its innovative practices.